

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

What is claimed is:

1. (Currently Amended) A toilet comprising:

a bowl sized to contain a liquid;

a valve movable from a normally-closed position in which a the liquid does not flow to the bowl to an open position in which the liquid is delivered to the bowl;

a sensor operable to sense a liquid level within the bowl and output an electrical signal indicative of the liquid level;

an actuator movable between a flush position and an idle position; and

an electronic controller coupled to the sensor to receive the electrical signal, the controller operable to move the valve to the open position in response to movement of the actuator to the flush position and the receipt of the electrical signal having a value indicative that the liquid level within the bowl is below a predetermined level.
2. (Original) The toilet of claim 1, wherein the valve includes a solenoid-actuated valve.
3. (Original) The toilet of claim 1, wherein the sensor includes a liquid level sensor.

4. (Original) The toilet of claim 1, wherein at least a portion of the sensor is disposed within the bowl.

5. (Previously Presented) The toilet of claim 1, wherein the sensor detects a pressure indicative of a liquid level within the bowl and sends an electrical signal to the controller when the pressure exceeds a predetermined value.

6. (Original) The toilet of claim 1, wherein the controller inhibits movement of the valve to the open position when the sensor senses a liquid level above the predetermined level.

7. (Original) The toilet of claim 1, wherein the controller includes a timer operable to initiate movement of the valve to the closed position after the valve has been in the open position for a predetermined length of time.

8. (Original) The toilet of claim 1, wherein ~~the valve is the sole~~ only one valve is used to inhibit flooding and to flush the toilet.

9. (Previously Presented) An electrically-controlled toilet comprising:

- a bowl sized to contain a liquid;
- a solenoid-operated valve movable between a normally-closed position in which a liquid does not flow to the bowl and an open position in which the liquid is delivered to the bowl;
- a liquid-level sensor at least partially positioned within the bowl and operable to sense a liquid level within the bowl, the liquid-level sensor operable to output an electrical flood signal in response to a sensed liquid-level above a predetermined level;
- an actuator movable between a flush position and an idle position; and
- a controller operable to move the valve to the open position in response to movement of the actuator to the flush position and the absence of the flood signal.

10. (Previously Presented) The toilet of claim 9, wherein the sensor detects a pressure and sends the flood signal to the controller when the pressure exceeds a predetermined value.

11. (Original) The toilet of claim 9, wherein the controller inhibits movement of the valve to the open position when the sensor senses a liquid level above the predetermined level.

12. (Original) The toilet of claim 9, wherein the controller includes a timer operable to initiate movement of the valve to the closed position after the valve has been in the open position for a predetermined length of time.

13. (Currently Amended) The toilet of claim 9, wherein ~~the valve is the sole~~ only one valve is used to inhibit flooding and to flush the toilet.

14. (Currently Amended) The toilet of claim 9, wherein the sensor sends a first signal to the controller when the liquid level is below ~~the~~ a predetermined value and the sensor sends a second signal to the controller when the liquid level is above the predetermined value.

15. (Currently Amended) A method of operating a toilet, the method comprising:
providing a bowl operable to contain a liquid;
sensing a liquid level within the bowl;
generating an electrical signal indicative of the liquid level;
moving an actuator to a flush position; and
opening a valve to provide a flow of liquid to the bowl when the actuator is in the
flush position and the generated electrical signal corresponds to a the liquid level within the
bowl that is below a predetermined value.

16. (Original) The method of claim 15, wherein the sensing step includes
measuring a pressure within the bowl.

17. (Original) The method of claim 15, wherein opening the valve further
comprises energizing a solenoid.

18. (Cancelled)

19. (Previously Presented) The method of claim 15, further comprising timing the
duration that the valve is open.

20. (Currently Amended) The method of claim 19, further comprising closing the
valve in response to the passage of a predetermined length of time after the valve is opened.

21. (Previously Presented) The method of claim 15, further comprising:
providing an electronic controller;
delivering the generated electrical signal to the controller;
comparing the generated electrical signal to a flood signal; and
inhibiting the opening step when the generated electrical signal matches the flood signal.

22. (Currently Added) The toilet of claim 9, wherein the solenoid-operated valve comprises:

a first flow path between an inlet and an outlet;
a second flow path between the inlet and the outlet;
a diaphragm between the inlet and the outlet, the diaphragm provided to inhibit liquid flow in the valve's normally-closed position;
a solenoid operated plunger that is biased to a closed position and is moved to open the second flow path thereby causing the diaphragm to move and fully open the first flow path;
wherein the solenoid is de-energized thereby moving the plunger back to the closed position interrupting the second flowpath which allows the diaphragm to return to its closed position, thereby closing the first flowpath, thereby closing the valve.